

# INTERNATIONAL SEARCH REPORT

Internat Application No  
PCT/GB 02/04604

A. CLASSIFICATION OF SUBJECT MATTER  
IPC 7 H01S5/34 H01L33/00

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 H01S

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, IBM-TDB, INSPEC, COMPENDEX

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>BARBIERI S ET AL: "Continuous wave terahertz quantum cascade laser" THZ 2002. 2002 IEEE TENTH INTERNATIONAL CONFERENCE ON TERAHERTZ ELECTRONICS PROCEEDINGS (CAT. NO.02EX621), THZ 2002. 2002 IEEE TENTH INTERNATIONAL CONFERENCE ON TERAHERTZ ELECTRONICS PROCEEDINGS, CAMBRIDGE, UK, 9-10 SEPT. 2002, pages 105-108, XP002243243 2002, Piscataway, NJ, USA, IEEE, USA ISBN: 0-7803-7630-7 page 105, right-hand column -page 106, left-hand column; figure 1</p> <p style="text-align: center;">---</p> <p style="text-align: center;">-/--</p>	1-4,6,9, 11,12



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

### \* Special categories of cited documents:

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the International filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the International filing date but later than the priority date claimed

\*T\* later document published after the International filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

\*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

\*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

\*G\* document member of the same patent family

Date of the actual completion of the International search

4 June 2003

Date of mailing of the International search report

20/06/2003

Name and mailing address of the ISA

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>LYNCH S A ET AL: "INTERSUBBAND ELECTROLUMINESCENCE FROM SI/SIGE CASCADE EMITTERS AT TERAHERTZ FREQUENCIES" APPLIED PHYSICS LETTERS, AMERICAN INSTITUTE OF PHYSICS. NEW YORK, US, vol. 81, no. 9, 26 August 2002 (2002-08-26), pages 1543-1545, XP001142343 ISSN: 0003-6951 page 1543, right-hand column, line 1 -page 1544, left-hand column, line 4; figures 1,2</p>	1
X	<p>ROCHAT M ET AL: "LOW-THRESHOLD TERAHERTZ QUANTUM-CASCADE LASERS" APPLIED PHYSICS LETTERS, AMERICAN INSTITUTE OF PHYSICS. NEW YORK, US, vol. 81, no. 8, 19 August 2002 (2002-08-19), pages 1381-1383, XP001142480 ISSN: 0003-6951 page 1382, left-hand column; figures 1,2</p>	1
O,A	<p>2002 IEEE TENTH INTERNATIONAL CONFERENCE ON TERAHERTZ ELECTRONICS PROCEEDINGS (CAT.NO. 02EX621), CAMBRIDGE, UK, 9-10 SEPT. 2002, pages 1-6, XP001147575 figure 2</p>	1,5